

**WHAT IS CLAIMED IS:**

- 1 1. A server initiated method for implementing alerts on a browser running on a portable  
2 handheld device, comprising:
  - 3 generating an asynchronous notification action from the server;
  - 4 transmitting in response to said asynchronous notification alert, an asynchronous
  - 5 application alert containing a message to indicate availability of HTML pages describing the
  - 6 nature of the alert;
  - 7 receiving the asynchronous application alert at a node on a network;
  - 8 translating the asynchronous application alert into the original message; transmitting
  - 9 an alert receipt acknowledgment to the server; and
  - 10 providing access to the alert HTML page through a URL containing the appropriate
  - 11 query strings necessary to present the appropriate HTML page options.
- 1 2. The method of claim 1 wherein the node on the network is a wireless adapter.
- 1 3. The method of claim 1, wherein the alert is in the form of a paging signal.
- 1 4. The method of claim 1, wherein the alert is in the form of an alarm signal.
- 1 5. The method of claim 1, wherein the alert signal pre-empt's other Web client  
2 application states of the node.
- 1 6. The method of claim 1 further comprising:
  - 2 utilizing an alerting mechanism supporting user datagram protocol frames;
  - 3 generating protocol data units consisting of command elements constructed as ASCII
  - 4 comma delimited strings; and
  - 5 transmitting data to the network node using user datagram protocol services.
- 1 7. A method of messaging in a virtual network of spatially separate individual wireless  
2 local area network (WLANs) comprising:
  - 3 establishing a web server at an Internet node;
  - 4 connecting an access point in each of said WLANs to said Internet node;
  - 5 executing a browser program on a first mobile unit in a first WLAN;

6 in a second mobile unit in a second WLAN, encoding a textual message into a packet  
 7 with a destination address corresponding to the first mobile unit;  
 8 transferring the packetized textual message to the web server;  
 9 at the web server, creating a web page with the textual message;  
 10 at the web server, determining if the first mobile unit is active on the network at the  
 11 time the packetized textual message is received at the web server, and the WLAN in which  
 12 the first mobile unit is active;  
 13 if the first mobile unit is active, transmitting an alert from the web server to the first  
 14 mobile unit that a message destined for such unit is available; and  
 15 displaying a window on the display of the first mobile unit advising the user that said  
 16 alert has been received, and allowing the user to enter a command if the message is to be  
 17 displayed on the display.

- 1 8. A wireless mobile network unit, comprising:  
 2 an input device for receiving data input from a user;  
 3 a display device supporting HTML functionality allowing the user to examine data;  
 4 a processor programmed to support the use of asynchronous application alerts;  
 5 a transmission device for receiving the alerts and transmitting an alert receipt  
 6 acknowledgment; and  
 7 a memory containing instructions to receive a paging signal.
- 1 9. The network unit of claim 8 further comprising:  
 2 a processor which supports user datagram protocol frames and processes protocol  
 3 data units consisting of command elements constructed as ASCII, comma delimited, strings.
- 1 10. The network unit of claim 8 further comprising:  
 2 a transmission device which transmits data via user datagram protocol services.
- 1 11. A wireless network comprising:  
 2 at least one host computer processor configured to generate an alert signal;  
 3 a plurality of access points which are linked to at least one host processor; and  
 4 mobile wireless network units configured to receive the alert signals and transmit  
 5 notification of receipt of such signals.

1 12. An article comprising a computer-readable medium that stores computer-executable  
2 instructions for configuring a wireless network adapter, the instructions causing a computer  
3 to:

4 generate an asynchronous notification action from the server;  
5 transmit in response to an asynchronous application action, an alert containing a  
6 message to indicate availability of HTML pages describing the nature of the alert;  
7 receive the asynchronous application alert at a node on a network;  
8 translate the asynchronous application alert into the original message;  
9 transmit an alert receipt acknowledgment to the server; and  
10 provide access to the alert HTML page via a URL containing the appropriate query  
11 strings necessary to present the appropriate HTML page options.

1 13. Article of claim 12, wherein the node on the network is a wireless adapter.

1 14. Article of claim 12, wherein the alert is in the form of a paging signal.

1 15. Article of claim 12, wherein the alert is in the form of an alarm signal.

1 16. Article of claim 12, wherein the alert signal pre-empt's other Web client application  
2 states of the node.

1 17. Article of claim 12, further comprising instructions causing a computer to:  
2 utilize an alerting mechanism supporting user datagram protocol frames;  
3 generate protocol data units consisting of command elements constructed as ASCII  
4 comma delimited strings; and  
5 transmit data to the network node using user datagram protocol services.

1 18. A client initiated message delivery method, comprising:  
2 establishing a connection between a client and server;  
3 generating a request from the client to the server; and  
4 generating a response from the server to the client based on the request;  
5 receiving a response at the client.

1 19. The method of claim 18, wherein generating a request further comprising:

2 creating a message originated by the client; and  
3 transmitting said message to server.

1 20. The method of claim 18, wherein generating a request further comprising:  
2 constructing a request to view a user-message stored at the server; and  
3 transmitting said request to server.

1 21. The method of claim 18, wherein generating a response further comprising:  
2 interpreting client request, wherein if request is a header type, response is a header  
3 retrieved from the server, and wherein if request is not header type, response is a user-  
4 message retrieved from the server; and  
5 transmitting said response to client.

1 22. The method of claim 18, wherein receiving response further comprising:  
2 determining response type;  
3 if response type is text, displaying user-message as text;  
4 if response type is audio, displaying user-message as audio;  
5 if response type is image, displaying user-message as image; and  
6 if response type header, displaying header information.

1 23. The method of claim 18, wherein the client is a portable computer device with  
2 network capabilities.

1 24. The method of claim 18, wherein the server is a computer device with network  
2 capabilities.

1 25. A server initiated apparatus for implementing alerts on a browser running on a  
2 portable handheld device, comprising:  
3 means for generating an asynchronous notification action from the server;  
4 means for transmitting in response to said asynchronous notification alert, an  
5 asynchronous application alert containing a message to indicate availability of HTML pages  
6 describing the nature of the alert;  
7 means for receiving the asynchronous application alert at a node on a network;

8 means for translating the asynchronous application alert into the original message;  
9 transmitting an alert receipt acknowledgment to the server; and  
10 means for providing access to the alert HTML page through a URL containing the  
11 appropriate query strings necessary to present the appropriate HTML page options.

1 26. The apparatus of claim 25 wherein the node on the network is a wireless device.

1 27. The apparatus of claim 25, wherein the alert is in the form of a paging signal.

1 28. The apparatus of claim 25, wherein the alert is in the form of an alarm signal.

1 29. The apparatus of claim 25, wherein the alert signal pre-emptes other Web client  
2 application states of the node.

1 30. The apparatus of claim 25 further comprising:  
2 means for utilizing an alerting mechanism supporting user datagram protocol frames;  
3 means for generating protocol data units consisting of command elements constructed  
4 as ASCII comma delimited strings; and  
5 means for transmitting data to the network node using user datagram protocol  
6 services.

1 31. An apparatus for messaging in a virtual network of spatially separate individual  
2 wireless local area network (WLANs) comprising:  
3 means for establishing a web server at an Internet node;  
4 means for connecting an access point in each of said WLANs to said Internet node;  
5 means for executing a browser program on a first mobile unit in a first WLAN;  
6 in a second mobile unit in a second WLAN, means for encoding a textual message  
7 into a packet with a destination address corresponding to the first mobile unit;  
8 means for transferring the packetized textual message to the web server;  
9 at the web server, means for creating a web page with the textual message;  
10 at the web server, means for determining if the first mobile unit is active on the  
11 network at the time the packetized textual message is received at the web server, and the  
12 WLAN in which the first mobile unit is active;

13 if the first mobile unit is active, means for transmitting an alert from the web server to  
 14 the first mobile unit that a message destined for such unit is available; and  
 15 means for displaying a window on the display of the first mobile unit advising the  
 16 user that said alert has been received, and allowing the user to enter a command if the  
 17 message is to be displayed on the display.

1 32. A client initiated message delivery apparatus, comprising:  
 2 means for establishing a connection between a client and server;  
 3 means for generating a request from the client to the server; and  
 4 means for generating a response from the server to the client based on the request;  
 5 means for receiving a response at the client.

1 33. The apparatus of claim 32, wherein generating a request further comprising:  
 2 means for creating a message originated by the client; and  
 3 means for transmitting said message to server.

1 34. The apparatus of claim 32, wherein generating a request further comprising:  
 2 means for constructing a request to view a user-message stored at the server; and  
 3 means for transmitting said request to server.

1 35. The apparatus of claim 32, wherein generating a response further comprising:  
 2 means for interpreting client request, wherein if request is a header type, response is a  
 3 header retrieved from the server, and wherein if request is not header type, response is a user-  
 4 message retrieved from the server; and  
 5 means for transmitting said response to client.

1 36. The apparatus of claim 32, wherein receiving response further comprising:  
 2 means for determining response type;  
 3 wherein if response type is text, means for displaying user-message as text;  
 4 wherein if response type is audio, means for displaying user-message as audio;  
 5 wherein if response type is image, means for displaying user-message as image; and  
 6 wherein if response type header, means for displaying header information.

